

WHAT IS CLAIMED IS:

1. A rotatable electrical plug comprising:
 - a housing having an inner cover shell, an outer cover shell abutted against
5 said inner cover shell, a wire hole, an opening formed in said inner cover shell, and a
substrate provided inside said outer cover shell;
 - a rotary prong holder mounted inside said housing and rotatably coupled to
the opening in said inner cover shell;
 - at least two prongs respectively fastened to said rotary prong holder, said at
10 least two prongs each having an outer side respectively extended out of the opening in
said inner cover shell and an inner side respectively fastened to said rotary prong
holder, said at least two prongs including one center prong and at least one side prong,
the inner side of said center prong being fastened to a center of rotation of said rotary
prong holder, the inner side of each of said at least one side prong being fastened to
15 said rotary prong holder and spaced from the center of rotation of said rotary prong
holder at a different distance;
 - at least one annular contact member respectively mounted on one side of said
rotary prong holder opposite to the opening in said inner cover shell and concentrically
arranged around the center of rotation of said rotary prong holder and respectively
20 electrically connected to said at least one side prong; and
 - at least two connecting members respectively affixed to said substrate, the
number of said at least two connecting member being equal to the number of said at
least two prongs, said at least two connecting members each having a connecting
portion for the connection of an electric wire and a contact portion respectively
25 disposed in contact with the inner side of said center prong and said at least one

annular contact member.

2. The rotatable electrical plug as claimed in claim 1, wherein the inner side of said center prong has a cylindrical shape.

5

3. The rotatable electrical plug as claimed in claim 1, wherein the inner side of said center prong has a tubular shape.

4. The rotatable electrical plug as claimed in claim 1, wherein said at least
10 two prongs are substantially L-shaped flat metal plate members each having a respective outer side made relatively longer than a respective inner side and a mounting leg extended from the respective inner side.

5. The rotatable electrical plug as claimed in claim 4, wherein said rotary
15 prong holder comprises an upper holder plate and a lower holder plate arranged in a stack, said lower holder plate having a plurality of through holes for the mounting of the inner sides of said at least two prongs respectively and an annular flange projecting from one side thereof and adapted to accommodate said upper holder plate, said upper holder plate having a plurality of through holes, the number of the through holes of
20 said upper holder plate being less one with respect to the through holes of said lower holder plate, one of the through holes of said upper holder plate extending through the center of said upper holder plate; said at least two prongs each have the respective longer outer sides extended through the through holes of said lower holder plate to the outside of said rotary prong holder and the respective shorter inner sides sandwiched in
25 between said upper holder plate and said lower holder plate and the respective

mounting legs respectively extended out of the through holes of said upper holder plate.

6. The rotatable electrical plug as claimed in claim 1, wherein said outer
5 cover plate has an opening and a detachable cap fastened to the opening of said outer cover plate; said substrate is mounted in said outer cover plate and spaced from the opening of said outer cover plate at a distance for receiving the electric wires therebetween.

10 7. A rotatable electrical plug comprising:

a housing having an inner cover shell, an outer cover shell abutted against said inner cover shell, a wire hole, an opening formed in said inner cover shell, and a substrate provided inside said outer cover shell;

a rotary prong holder mounted inside said housing and rotatably coupled to
15 the opening in said inner cover shell;

at least two prongs respectively fastened to said rotary prong holder, said at least two prongs each having an outer side respectively extended out of the opening in said inner cover shell and an inner side respectively fastened to said rotary prong holder and spaced from a center of rotation of said rotary prong holder at a different
20 distance;

a plurality of annular contact members respectively mounted on one side of said rotary prong holder opposite to the opening in said inner cover shell and concentrically arranged around the center of rotation of said rotary prong holder and respectively electrically connected to said at least two prongs, the number of said
25 annular contact members being equal to the number of said at least two prongs; and

a plurality of connecting members respectively affixed to said substrate, the number of said connecting members being equal to the number of said at least two prongs, said connecting members each having a connecting portion for the connection of an electric wire and a contact portion respectively disposed in contact with said
5 contact members.

8. The rotatable electrical plug as claimed in claim 7, wherein said at least two prongs are substantially L-shaped flat metal plate members each having a respective outer side made relatively longer than a respective inner side and a
10 mounting leg extended from the respective inner side.

9. The rotatable electrical plug as claimed in claim 8, wherein said rotary prong holder comprises an upper holder plate and a lower holder plate arranged in a stack, said lower holder plate having a plurality of through holes for the mounting of
15 the inner sides of said at least two prongs respectively and an annular flange projecting from one side thereof and adapted to accommodate said upper holder plate, said upper holder plate having a plurality of through holes, the number of the through holes of said upper holder plate being less one with respect to the through holes of said lower holder plate; said at least two prongs each have the respective longer outer sides
20 extended through the through holes of said lower holder plate to the outside of said rotary prong holder and the respective shorter inner sides sandwiched in between said upper holder plate and said lower holder plate and the respective mounting legs respectively extended out of the through holes of said upper holder plate.

25 10. The rotatable electrical plug as claimed in claim 7, wherein said outer

cover plate has an opening and a detachable cap fastened to the opening of said outer cover plate; said substrate is mounted in said outer cover plate and spaced from the opening of said outer cover plate at a distance for receiving the electric wires therein.